



UNITED STATES PATENT AND TRADEMARK OFFICE

up
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,274	10/16/2001	Masato Fujinaga	50099-184	1996

7590 05/05/2004
MCDERMOTT, WILL & EMERY
600 13th Street, N.W.
WASHINGTON, DC 20005-3096

EXAMINER

ANDUJAR, LEONARDO

ART UNIT PAPER NUMBER

2826

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/977,274

Applicant(s)

FUJINAGA, MASATO

Examiner

Leonardo Andújar

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-16 and 18-24 is/are pending in the application.
- 4a) Of the above claim(s) 9-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-21, 23 and 24 is/are rejected.
- 7) ☒ Claim(s) 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 18, 20 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by (KR1999-73868 cited by applicant).
4. Regarding claim 18, KR1999-73868 (e.g., fig. 3) shows a high frequency semiconductor device comprising:
 - A semiconductor substrate 100 having a main surface;
 - A first wiring 108 provided over the main surface of the semiconductor substrate;
 - A grounding conductor layer (112, 116) continuously covering a periphery of the first wiring with a first insulator 114 interposed therebetween in a section crossing a direction of extension of the first wiring and including an unitary first portion 116 covering an upper surface and two side surfaces of the first wiring and a second portion 112 covering a bottom surface of the first wiring.
5. Regarding claim 20, KR1999-73868 shows that the grounding conductor layer includes a flat upper surface.

6. Regarding claim 24, KR1999-73868 shows that the portion of the insulator, which covers upper and side surfaces of the first wiring and is provided in contact with the grounding conductors layer, is formed of the same material.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 19, 21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over (KR1999-73868 cited by applicant).

9. Regarding claim 19, KR1999-73868 (e.g., fig. 3) shows most aspects of the instant invention including a first wiring 108 provided over the main surface of a semiconductor substrate 100 and completely surrounded by a grounding conductor layer (112, 116). As shown in figure 3, the grounding conductor layer is connected to the substrate. KR1999-73868 does not disclose that the first wiring conductor layer 108 may comprise a second wiring layer. Therefore, KR1999-73868 does not show a second insulator interposed therebetween in a section crossing a direction of extension of the second wiring. However, this type of arrangement is considered to be a duplication of parts due to obtain a multiple effect (e.g., greater transmission capacity). This limitation is considered to be an obvious modification of the high frequency semiconductor device disclosed in the Prior Art. The multiplicity of parts is not considered an innovation over the prior art unless this duplication of part creates a

synergistic combination or unexpected results. See *St. Regis Paper Co. V. Bemis Co., Inc.*, 193 USPQ 8, 11 (7th Cir. 1977).

10. Regarding claim 21, KR1999-73868 suggests that the ground conductor layer continuously covers the periphery of the second wiring layer 108 in cooperation with the semiconductor substrate with a second insulator and the insulating film interposed therebetween in the section crossing a direction of extension of the second wiring.

11. Regarding claim 23, KR1999-73868 suggests that a portion of the second insulator, which covers the upper and side surfaces of the second wiring and is provided in contact with the grounding conductor layer is formed of the same material.

Allowable Subject Matter

12. Claim 22 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

13. Applicant's arguments filed 04/01/2004 have been fully considered but they are not persuasive.

14. Applicant argues that KR 1999-73868 does not disclose the concept of a grounding conductor layer including a unitary first portion covering an upper surface and two side surfaces of the first wiring and a second portion covering a bottom surface of the wiring. However, KR 1999-73868 (e.g., fig. 3) clearly shows a grounding conductor layer including a unitary first portion 116 covering an upper surface and two side

surfaces of a first wiring 108 and a second portion 112 covering a bottom surface of the wiring.

15. Applicant argues that first portion 116 is not a unitary conductor layer because includes separated layers. Nevertheless, the first portion 116 can be recognized as “unitary” since it is comprised by units (*i.e.*, 116a and 116b). The term “unitary” is interpreted as based or characterized by one or more units (see endnote).

Conclusion

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonardo Andújar whose telephone number is 571-272-1912. The examiner can normally be reached on Mon through Thu from 9:00 AM to 7:30 PM EST.

Art Unit: 2826

18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

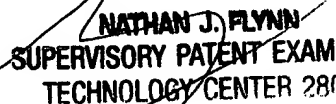
19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leonardo Andújar

Patent Examiner Art Unit 2826

LA

4/29/04


NATHAN J. FLYNN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

u·ni·tar·y

u·ni·tar·y (yí'nî-tèr'ê) *adjective*

1. Of or relating to a unit.
2. Having the nature of a unit; whole.
3. Based on or characterized by one or more units.

— **u'nî-tar'i·ly** *adverb*ⁱ

The American Heritage® Dictionary of the English Language, Third Edition copyright © 1992 by Houghton Mifflin Company. Electronic version licensed from INSO Corporation. All rights reserved. American Heritage is a registered trademark of Forbes, Inc.ⁱ